

for a greener tomorrow



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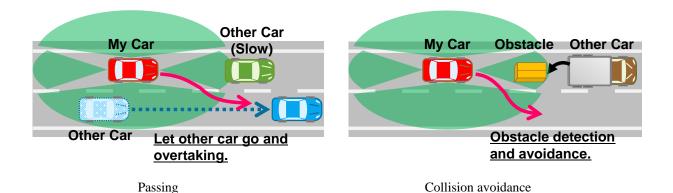
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# Mitsubishi Electric Develops Collision-avoidance Technology for Advanced Driver-assistance System

Sensors provide data for passing, evasive steering and more

**TOKYO, February 17, 2016** – <u>Mitsubishi Electric Corporation</u> (TOKYO: 6503) announced today that it has developed advanced driver-assistance algorithms for lane departure and passing based on perimeter sensing, and collision avoidance based on emergency steering, ensuring that its comprehensive autonomous-driving system will meet Level 3 criteria for performing all acceleration, steering and braking operations expect when the system senses that the driver should take control. Mitsubishi Electric will now accelerate trails in actual-use environments, aiming at commercial usage.



Real Image Distance Image Far Other Car Obstacle Obstacle Near

Sensing

The algorithm determines the timing for passing, first by evaluating sensory data on surrounding obstacles obtained from several sensors including cameras and millimeter-wave radar. After predicting the paths of moving obstacles and determining that there is no possibility of collision, it checks to see if any car is coming up from behind in the passing lane. If a car is coming, the system lets the car go by safely, then changes lanes to overtake the car ahead.

In the case of collision avoidance, the system looks for surrounding obstacles using several sensors including cameras and millimeter-wave radar, and then predicts the paths of any moving obstacles and the possibility of collision with them. If an obstacle is detected, the system immediately determines if braking would be sufficient or if evasive steering is required. Evasive steering is used only if the car is traveling at less than 60 kilometers per hour and the distance between the car and the obstacle is more than 30 meters.

The market is rapidly growing for driver-assistance systems capable of autonomous driving and active safety management. Concurrently, the development of autonomous-driving systems is being encouraged by national governments in Europe, the United States and Japan. Carmakers and suppliers are aiming to launch commercial systems for Level 3 autonomous driving within the first half of the 2020s.

#### **Patents**

Pending patents for the technology announced in this news release number four in Japan and four abroad.

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### About Mitsubishi Electric Corporation

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,323.0 billion yen (US\$ 36.0 billion\*) in the fiscal year ended March 31, 2015. For more information visit: http://www.MitsubishiElectric.com

\*At an exchange rate of 120 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2015